

chain nodes:

7 8 9 10 11 12 13 14 15 18 19 20 21 22

ring nodes:

1 2 3 4 5 6

chain bonds:

5-7 6-18 7-8 7-9 9-10 10-11 11-12 11-13 14-15 18-22 19-20 19-22 20-21

ring bonds:

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds:

7-8 7-9 9-10 11-12 11-13 14-15 18-22 19-20 19-22 20-21

exact bonds:

5-7 6-18 10-11

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems:

containing 1:

G1:H,[*1]

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS8:CLASS9:CLASS10:CLASS11:CLASS 12:CLASS13:CLASS14:CLASS15:CLASS18:CLASS19:CLASS20:CLASS21:Atom 22:CLASS Generic attributes :

21:

Saturation : Unsaturated

Number of Carbon Atoms: 7 or more Type of Ring System: Polycyclic

Element Count:

Node 21: Limited

N,N1

0,00

S,S0

=>

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```
7 8 9 10 11 12 13 14 15 18 19 20
ring nodes :
1 \quad \bar{2} \quad 3 \quad 4 \quad 5 \quad 6
chain bonds :
5-7 6-18 7-8 7-9 9-10 10-11 11-12 11-13 14-15 18-22 19-20 19-22 20-21
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
7-8 7-9 9-10 11-12 11-13 14-15 18-22 19-20 19-22 20-21
exact bonds :
5-7 6-18 10-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 :
G1:H,[*1]
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 18:CLASS 19:CLASS 20:CLASS
21:Atom 22:CLASS
Generic attributes :
```

21:

chain nodes :

10/690400

Saturation : Unsaturated Number of Carbon Atoms : 7 or more Type of Ring System : Polycyclic

Element Count : Node 21: Limited

> N,N1 0,00 S,S0

L1 STRUCTURE UPLOADED

=> s l1 SAMPLE SEARCH INITIATED 13:51:31 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 2574 TO ITERATE

77.7% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

0 ANSWERS

TOTAL

PROJECTED ITERATIONS: 48437 TO 54523 0 TO 0 PROJECTED ANSWERS:

1.2 0 SEA SSS SAM L1

=> s l1 sss full FULL SEARCH INITIATED 13:51:40 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 50851 TO ITERATE

100.0% PROCESSED 50851 ITERATIONS 4 ANSWERS SEARCH TIME: 00.00.02

SINCE FILE

L3 4 SEA SSS FUL L1

=> file caplus COST IN U.S. DOLLARS

ENTRY SESSION FULL ESTIMATED COST 172.55 172.76

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17:

Saturation : Unsaturated Number of Carbon Atoms : less than 7

Element Count :

.

Node 17: Limited

N,NO-1 O,O0

S,S0

strictly prohibited.

FILE COVERS 1907 - 29 May 2007 VOL 146 ISS 23 FILE LAST UPDATED: 28 May 2007 (20070528/ED)

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http://www.cas.org/infopolicy.html

=> s 13

L4 3 L3

=> d l4 1-3 bib abs hitstr

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L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
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AN 1999:764022 CAPLUS

DN 132:3323

TI Preparation of tetrahydroisoquinolinylnicotinic acid amides and related compounds as inhibitors of cysteine proteases.

IN Lubisch, Wilfried; Moller, Achim; Treiber, Hans-Jorg; Knopp, Monika

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

FAN.	PATENT NO.					KIND		DATE		APPLICATION NO.						DATE		
ΡI	WO	9961								WO 1999-EP3549								
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			LT,	LV,	MK,	MX,	NO,	NZ,	PL,	RO,	RU,	SG,	si.	SK,	TR.	UA.	US.	ZA.
			AM,	AZ,	KG,	MD,	TJ,	TM			•	•	•	•	,	,	,	,
		RW:	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC.	NL.
			PT,	SE							•	·		·	•	•		,
	CA 2333008					A 19991213				CA 1999-2333008 AU 1999-45003						19990525		
	AU 9945003																	
	BR 9910701				A 20010130				BR 1999-10701						19990525			
	EP 1080074			A1 20010307				EP 1999-927749						19990525				
	ΕP	10,80	074			B1		2006	1108									
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	HU 200102146				A2 20011128				HU 2001-2146						19990525			
	JP/2002516311					T 20020604				JP 2000-550829						19990525		
	AT 344794				T 20061115				AT 1999-927749 EP 2006-23149						19990525			
	ĘΡ	1757	584			A1		2007	0228]	EP 2	006-	2314	9		1	9990	525
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			NL,	PT,	SE,	AL,		LV,										
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PRAI	DE 1998-19823245					A 19980525 A3 19990525												
	EP	1999	-927	749		А3		1999	0525									
00	WO	1999	-EP3	549		W		1999	0525									
OS	MARPAT 132:3323																	
AB	() (l,						
	dihydro(iso)indolyl; B = Ph, naphthyl, pyridyl, pyrimidinyl, quinoly											<i>σ</i> 1.						

AB AB(R1)nCONHCHR2COR3 [A = (substituted) tetrahydro(iso)quinolinyl, dihydro(iso)indolyl; B = Ph, naphthyl, pyridyl, pyrimidinyl, quinolyl, thienyl, furyl, etc.; R1 = H, alkyl, alkoxy, alkenyl, alkynyl, alkylphenyl, OH, Cl, F, Br, iodo, etc.; n = 0-2; R2 = (substituted) alkyl; R3 = H, CO2R5, COZ; Z = (substituted) amino, piperazinyl, pyrrolidinyl, piperidinyl; R5 = (substituted) alkyl], were prepared Thus, Et

10/690400

CN

2-chloronicotinate, 1,2,3,4-tetrahydroisoquinoline hydrochloride, and K2CO3 were heated in DMF at 110° to give 87% Et 2-(1,2,3,4-tetrahydroisoquinolin-2-yl)nicotinate. This was saponified with aqueous NaOH in EtOH (81%) and the product was stirred with 3-amino-2-hydroxy-4-phenylbutyramide hydrochloride, Et3N, 1-hydroxybenzotriazole, and N'-3-dimethylaminopropyl-N-ethylcarbodiimide to give 85% 2-(1,2,3,4-tetrahydroisoquinolin-2-yl)nicotinic acid [N-(1-carbamoyl-1-hydroxy-3-phenylpropan-2-yl)]amide. The latter was stirred with pyridine. SO3 in Me2SO to give 31% 2-(1,2,3,4tetrahydroisoquinolin-2-yl)nicotinic acid [N-(1-carbamoyl-1-oxo-3phenylpropan-2-yl)]amide.

IT 247056-67-3P 247056-68-4P 250739-05-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tetrahydroisoquinolinylnicotinic acid amides and related compds. as inhibitors of cysteine proteases)

RN 247056-67-3 CAPLUS

3-Pyridinecarboxamide, N-[3-amino-2,3-dioxo-1-(phenylmethyl)propyl]-2-(3,4dihydro-2(1H)-isoquinolinyl)- (9CI) (CA INDEX NAME)

247056-68-4 CAPLUS

3-Pyridinecarboxamide, N-[3-amino-2,3-dioxo-1-(phenylmethyl)propyl]-2-(3,4dihydro-6,7-dimethoxy-2(1H)-isoquinolinyl)- (9CI) (CA INDEX NAME)

RN 250739-05-0 CAPLUS

3-Pyridinecarboxamide, N-[1-(aminooxoacetyl)pentyl]-2-(3,4-dihydro-6,7-CN dimethoxy-2(1H)-isoquinolinyl)- (9CI) (CA INDEX NAME)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
L4
AN
     1999:691085 CAPLUS
DN
     131:310835
ΤI
     Preparation of cysteine protease inhibitors for therapeutic use
     Lubisch, Wilfried; Moller, Achim; Treiber, Hans-Jorg; Knopp, Monika
IN
PA
     BASF Aktiengesellschaft, Germany
     PCT Int. Appl., 52 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     German
FAN.CNT 1
     PATENT NO.
                          KIND
                                  DATE
                                               APPLICATION NO.
                                                                       DATE
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PΙ
     WO 9954310
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                                  19991028
                                               WO 1999-EP2633
                                                                       19990420
     WO 9954310
                           A3
                                  20000217
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              ZA, AM, AZ, KG, MD, TJ, TM
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                           Α
                                  20020815
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                                              US 2003-690400
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PRAI DE 1998-19818615
                           Α
                                  19980420
     WO 1999-EP2633
                           W
                                  19990420
     US 2000-673089
                           A3
                                  20001011
OS
     MARPAT 131:310835
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GI

$$(R^2)n$$
 R^3 $|$ A-B-D-Y-CO-NH-CH-CO-R 4 I

$$\begin{array}{c} H_2C \longrightarrow Ph \\ H \\ \downarrow \\ Me_2N \longrightarrow CH_2 - p - C_6H_4 - C \longrightarrow C - o - C_6H_4 - CO \longrightarrow NH \end{array}$$

AB The invention relates to cysteine protease inhibitors of the general formula [(I); A = -(CH2)p-R1; R1 = pyrrolidine, morpholine, piperidine, -NR5R6, (N-substituted)piperazine; R5, R6 = independently H, alkyl, cyclohexyl, cyclopentyl, (CH2) nPh, where Ph may be R6-substituted; p = 1-2; B = (substituted) Ph, pyridyl, pyrimidyl or pyridazyl; D = bond, -(CH2)m-, -CH:CH-, -C.tplbond.C-; R2 = Cl, Br, F, alkyl, NHCO alkyl, NHSO2 alkyl, NO2, -O-alkyl or NH2; R3 = alkyl which can carry a (substituted) Ph ring, indolyl ring or cyclohexyl ring; Y = Ph, pyridine, pyrimidine or pyrazine; R4 = H, COOR9 or CO-Z, where Z = NR10R11; R9,R10,R11 = (independently) H, (unsubstituted) (unbranched) alkyl; n = 0-2 and m =0-4]. Thus, Et 2-bromo-benzoate and dimethyl(4-vinylbenzyl)amine were reacted, de-esterified, and the free acid intermediate reacted with (S)-phenylalaninol to give an intermediate which was reduced to give aldehyde (II) in 88% yield. Title compds. showed good results as inhibitors of calpain I and II or cathepsin B in a variety of in vivo and in vitro tests (no data given). IT 247219-18-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of as cysteine protease inhibitors for therapeutic use) 247219-18-7 CAPLUS

3-Pyridinecarboxamide, N-[3-amino-2,3-dioxo-1-(phenylmethyl)propyl]-2-[(1,2,3,4-tetrahydro-2-methyl-7-isoquinolinyl)oxy] - (9CI) (CA INDEX NAME)

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ΑN 1999:684297 CAPLUS

DN 131:299438

ΤI New substituted heterocyclic amides, their preparation and application TN

Lubisch, Wilfried; Moeller, Achim; Treiber, Hans-Joerg; Knopp, Monika

PΑ BASF A.-G., Germany

SO Ger. Offen., 36 pp.

RN

CN

CODEN: GWXXBX DT Patent LA German FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. ------- - - ------PΙ DE 19817459 Α1 19991021 DE 1998-19817459 19980420 CA 2328438 A1 19991028 CA 1999-2328438 WO 9954304 A1 19991028 WO 1999-EP2611 AL, AU, BG, BR, BY, CA, CN, CZ, GE, HR, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, ZA, AM, AZ, KG, MD, TJ, TM RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE AU 9939271 19991108 AU 1999-39271 19990419 BR 9909772 Α 20001219 BR 1999-9772 19990419 ÉP 1073638 EP 1999-922102 A1 20010207 19990419 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI, RO TR 200003056 T2 20010221 TR 2000-200003056 19990419 HU 200101688 20011128 A2 HU 2001-1688 19990419 JP 2002512228 Т 20020423 JP 2000-544645 19990419 BG 104831 Α 20010531 BG 2000-104831 20001010 US 6630493 B1 20031007 US 2000-673087 20001011 NO 2000005264 Α 20001019 NO 2000-5264 20001019 HR 2000000786 Α1 20010831 HR 2000-786 20001117 ZA 2000006718 Α 20011119 ZA 2000-6718 20001117 US 2004097508 **A**1 20040520 US 2003-601356 20030623 PRAI DE 1998-19817459 Α 19980420 WO 1999-EP2611 W 19990419 US 2000-673087 Α3 20001011 OS MARPAT 131:299438 GΙ

AB Heterocyclic amides such as I and II were prepared as inhibitors of enzymes, e.g., calpains and cathepsin B. Thus, II was prepared in 4 steps starting from Et 2-amino-4-thiazolecarboxylate and 2-naphthoyl chloride.

IT 247056-67-3P 247056-68-4P

10/690400

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(heterocyclic amides as enzyme inhibitors)

RN 247056-67-3 CAPLUS

CN 3-Pyridinecarboxamide, N-[3-amino-2,3-dioxo-1-(phenylmethyl)propyl]-2-(3,4-dihydro-2(1H)-isoquinolinyl)- (9CI) (CA INDEX NAME)

RN 247056-68-4 CAPLUS

CN 3-Pyridinecarboxamide, N-[3-amino-2,3-dioxo-1-(phenylmethyl)propyl]-2-(3,4-dihydro-6,7-dimethoxy-2(1H)-isoquinolinyl)- (9CI) (CA INDEX NAME)

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FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.45 191.84 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -2.34

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STN INTERNATIONAL SESSION SUSPENDED AT 13:55:36 ON 29 MAY 2007